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ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER PEREZ, ANGELICA	
			ART UNIT 2618	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.



## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 01/16/2007 have been fully considered but they are not persuasive.

2. In the remarks, the applicant argued in substance:

(A) In pages 6-7, the applicant argues, In "Takano... There is absolutely no teaching that the disclosed principles are related to, or could be used for, estimating the speed of the mobile terminal.

(A) In response to argument (A), the examiner would like to show where Takano, in deed, shows where the disclosed principles aid in the estimation of the MS's speed in relation to another apparatus or object (see Takano, column 3, lines 48-67 and column 4, lines 1-5, e.g., "Doppler frequency").

(B) In page 7, "a memory for storing the sequence of transmit power control commands... The Applicant has review Takano and find not such teaching."

(B) In response to argument (B), the Examiner would like to point where, "...the accumulator stores a predetermined number of TCP bits received..." (See column 13, lines 46-50), the accumulator requires a memory to store the information received; it can be a temporary memory or any kind of memory. Therefore, given the broadest reasonable interpretation to the claim, the information is stored in a memory, in deed.

(C) In pages 7-8, the applicant argues where "Takano is referring to transmit power control commands received by a mobile terminal. In contrast, Applicant's

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invention...transmit power control commands transmitted by a mobile station to an access point.

(C) In response to argument (C), the examiner would like to indicate that closed-loop power control is also known for where a mobile station receives a downlink power signal and where it transmits TPC commands to the BS in order to maintain an acceptable received signal in spite of fluctuations.

D) In pages 7-8, the applicant argues, "The examiner has failed to establish prima facie case of obviousness..."

(C) With respect to argument (C), the examiner would like explain where the main core of the prior art deals with performing power control. The prior art relays on the power control commands in the determination of the speed of the MS so that further power control can be performed in order to maintain a stable communication connection.

### ***Claim Objections***

3. Claims 15 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

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subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-13 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo (Kubo et al.; US Patent No.: 6,249,682 B1) in view of Takano (Takano et al.; US Patent No.: 7,103,376 B2).

Regarding claims 11 and 16, Kubo teaches of an apparatus and method for determining a speed indication signal indicating a speed of a wireless mobile telecommunication device relative to the apparatus (column 1, lines 5-10), where the apparatus determines the speed indication signal from a sequence of transmit power control commands sent by the wireless mobile telecommunication device to an access point in a wireless telecommunication network (column 2, lines 16-29; figure 1, items "transmitter station" and "receiver station" and figure 6) for controlling, in use, a transmit power of a radio signal transmitted by the access point to the wireless mobile telecommunication device (column 2, lines 16-29; figure 1, items "transmitter station" and "receiver station").

Kubo does not specifically teach where the apparatus comprises a memory for storing the sequence of transmit power control commands and a logical filter circuit for determining a radio signal strength minimum in the radio signal at a location of the mobile telecommunication device by detecting if a predetermined number of consecutive transmit power control commands from the sequence of transmit power control commands each comprise either an 'up' or 'down' transmit power control command.

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In related art concerning a method and apparatus for controlling transmission power in a cellular mobile communication system, Takano teaches where the apparatus comprises a memory for storing the sequence of transmit power control commands (column 13, lines 7-24 and 45-50) and a logical filter circuit for determining a radio signal strength minimum in the radio signal at a location of the mobile telecommunication device by detecting if a predetermined number of consecutive transmit power control commands from the sequence of transmit power control commands each comprise either an 'up' or 'down' transmit power control command (column 13, lines 16-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kubo's apparatus and method for combining speed in a mobile communication with Takano's sequence storage and detection of power control commands in order to calculate the speed of the mobile unit, as taught by Takano.

Regarding claims 12 and 17, Kubo and Takano teach all the limitations of claims 11 and 16, respectively.

Where Takano teaches where the logical filter circuit is adapted to identify if at least four consecutive transmit power control commands each comprise an 'up' transmit power control command by logically comparing the value of each of said at least four transmit power control commands (column 13, lines 20-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kubo's apparatus and method for combining speed in a

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mobile communication with Takano's sequence of at least four TPC in order to obtain speed measurements, as taught by Takano.

Regarding claims 13 and 18, Kubo and Takano teach all the limitations of claims 12 and 17, respectively.

Takano teaches where the logical filter circuit is further adapted to identify a start of the at least four consecutive transmit power control commands by comparing if a first of the at least four transmit power control commands is not equal to a preceding transmit power control command in the sequence of transmit power control commands (column 13, lines 13-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kubo's apparatus and method for combining speed in a mobile communication with Takano's comparisons in order to determine where the sequences of equal commands starts and subsequently quantify them, as taught by Takano.

6. Claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo in view of Takano and further in view of Yamamoto (Yamamoto et al; US Pub. No.: 2002/0,013,156 A1).

Regarding claims 14 and 19, Kubo and Takano teach all the limitations of claims 11 and 16, respectively.

Kubo and Takano do not specifically teach where a speed information control device for providing a speed estimation signal for the wireless mobile telecommunication device; and a Doppler frequency measurement device for

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determining a Doppler speed signal for the wireless mobile telecommunication device, the apparatus being adapted to provide the speed estimation signal in dependence on the speed indication signal for speeds of the wireless mobile telecommunication device below a predetermined threshold and on the Doppler speed signal for speeds above the predetermined threshold.

In related art concerning a communication system, transmitter, receiver and method Yamamoto teaches where a speed information control device for providing a speed estimation signal for the wireless mobile telecommunication device (paragraphs 26-27); and a Doppler frequency measurement device for determining a Doppler speed signal for the wireless mobile telecommunication device (paragraphs 42-43), the apparatus being adapted to provide the speed estimation signal in dependence on the speed indication signal for speeds of the wireless mobile telecommunication device below a predetermined threshold and on the Doppler speed signal for speeds above the predetermined threshold (paragraphs 54-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kubo and Takano apparatus and method for combining speed in a mobile communication with Yamamoto's Doppler frequency measurement and comparison in order to obtain satisfactory interleave between frames, as taught by Yamamoto.



***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 6:00 a.m. - 1:30 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

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Angelica Perez  
Examiner



MATTHEW ANDERSON  
SUPERVISORY PATENT EXAMINER

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March 20, 2007